

REMARKS/ARGUMENTS

Reconsideration and allowance in view of the foregoing amendment and the following remarks are respectfully requested.

Claims 2-4 and 6-13 are now pending.

The disclosure was objected to because of noted informalities. The specification has been revised above to correct the spelling of "housing" as requested by the Examiner. Also, the Abstract has been revised for clarity.

Original claims 1, 2, 4 and 5 were rejected under 35 USC 102(b) as being anticipated by Junichi. Applicant respectfully traverses this rejection.

Anticipation under Section 102 of the Patent Act requires that a prior art reference disclose every claim element of the claimed invention. See, e.g., Orthokinetics, Inc. v. Safety Travel Chairs, Inc., 806 F.2d 1565, 1574 (Fed. Cir. 1986). While other references may be used to interpret an allegedly anticipating reference, anticipation must be found in a single reference. See, e.g., Studiengesellschaft Kohle, G.m.b.H. v. Dart Indus., Inc., 726 F.2d 724, 726-27 (Fed. Cir. 1984). The absence of any element of the claim from the cited reference negates anticipation. See, e.g., Structural Rubber Prods. Co. v. Park Rubber Co., 749 F.2d 707, 715 (Fed. Cir. 1984). Anticipation is not shown even if the differences between the claims and the prior art reference are insubstantial and the missing elements could be supplied by the knowledge of one skilled in the art. See, e.g., Structural Rubber Prods., 749 F.2d at 716-17.

Original claims 1 and 5 have been canceled above and new independent claim 6 has been presented in lieu of original claim 1. Claim 6 recites more specifically that a side surface of the opposite end portion of the earth electrode faces the tip surface of the tip portion of the center electrode through the spark gap. Claim 6 also recites more specifically that a positional difference between the center axis of the center electrode

and a center of the tip surface of the earth electrode is measured and that the positional relation between the earth electrode and the center electrode is changed so as to reduce the measured positional difference. Thus, the present invention is directed to a method of adjusting a positional relation between a center electrode and an earth electrode in a spark plug, wherein the spark plug is configured such that a side surface of the distal (opposite end) portion of the earth electrode faces the tip surface of the center electrode through the spark gap. In contrast to the combination recited in claim 6, Junichi is directed to manufacture of a spark plug, wherein a side surface 12 of the top end of the central electrode 4 faces or is opposite to tip surface 13 of the earth electrode 10 through a spark gap. Thus, Junichi does not relate to a spark plug structure wherein a side surface of the earth electrode is opposite to the tip surface of the center electrode, so that Junichi relates to a different structural configuration than that of the invention claimed in claim 6.

Furthermore, as recited in applicant's independent claim 6, a positional difference between the center axis of the center electrode and the center of the tip surface of the earth electrode in a direction perpendicular to the center axis of the center electrode is measured, and the positional relation between the earth electrode and the center electrode is changed so as to reduce that measured positional difference. Accordingly, the positional correction effected by the invention minimizes the length of the spark gap, and sparks can effectively and reliably occur between the center electrode and the earth electrode.

In contrast to the invention of applicant's claim 6, in Junichi, it is judged whether the side surface 12 of the central electrode 4 is parallel with the tip surface 13 of the earth electrode 10 and insulator 2 (i.e. the central electrode 4) is rotated so as to align the side surface 12 with the tip surface 13 of the earth electrode 10. The idea is to uniformly set the length of the spark gap over the entire tip surface 13 of the earth electrode 10. As is clear, the method of adjusting the positional relation and the target positional relation in Junichi is different from and does not teach that claimed in

applicant's claim 6. It is further respectfully submitted that it would be unobvious to modify the Junichi adjustment process so as to meet the limitations of applicant's claims, because such a modification of Junichi would relate to a spark plug tip configuration different from that presented by Junichi and would involve different positional concerns.

Applicant's dependent claim 2 further provides that the center of the tip surface of the earth electrode is an area centroid. Therefore, regardless of the shape of the tip surface, the distal end portion of the earth electrode can be reliably disposed to be placed in front of the tip surface of the center electrode through the spark gap. For the reasons advanced above, it is respectfully submitted that claims 6, 2 and all claims dependent directly or indirectly therefrom are not anticipated by and should be patentable over Junichi. New independent claim 10 and claims dependent thereon are patentable over Junichi at least for the same reasons as claim 6.

Claim 3 was rejected under 35 USC 103(a) as being unpatentable over Junichi in view of Sydow. Applicant respectfully traverses this rejection.

Claim 3 is submitted to be patentable over Junichi for the reasons advanced above with respect to claim 6, from which claim 3 depends. The Examiner's further reliance on Sydow does not overcome the deficiencies of Junichi noted above. It is therefore respectfully submitted that the pending claims are patentable over the combination of Junichi and Sydow as well.

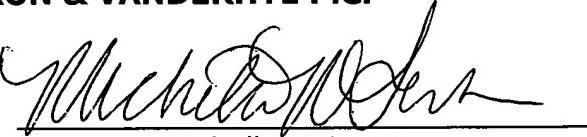
All objections and rejections having been addressed, it is respectfully submitted that the present application is in condition for allowance and an early Notice to that effect is earnestly solicited.

HANAI
Appl. No. 10/674,391
October 12, 2005

Respectfully submitted,

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